



PATENT
Docket No. 353532000801

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Tamara Alcaraz

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Mingqi ZHAO et al.

Serial No.: 09/939,327

Filing Date: August 24, 2001

For: MICROFLUIDIC CHIP HAVING
INTEGRATED ELECTRODES

Examiner: To Be Assigned

Group Art Unit: 1743

SUBMISSION OF DRAWINGS

Box Missing Parts
Assistant Commissioner for Patents
Washington, D.C. 20231

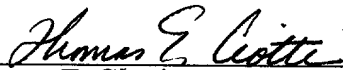
Dear Sir:

Enclosed are 19 sheet(s) of drawings in connection with the above-identified application.

Respectfully submitted,

Dated: December 17, 2001

By:



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Registration No. 21,013

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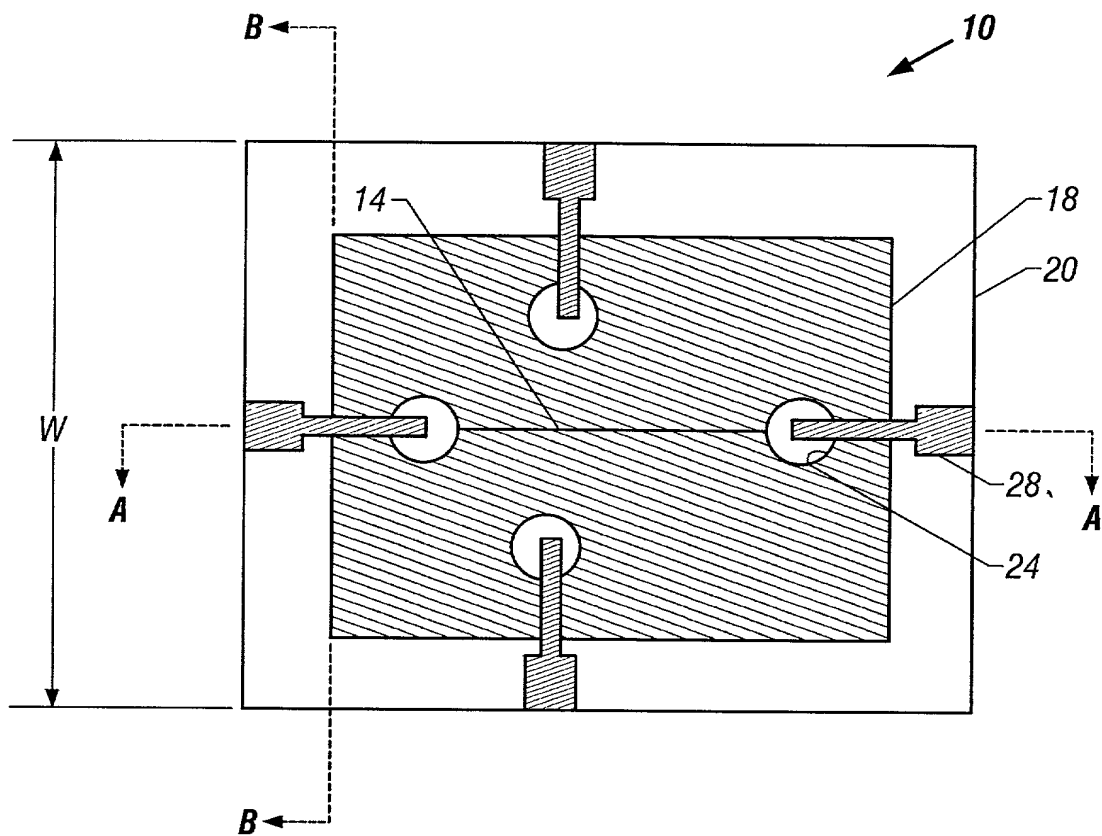


FIG. 1

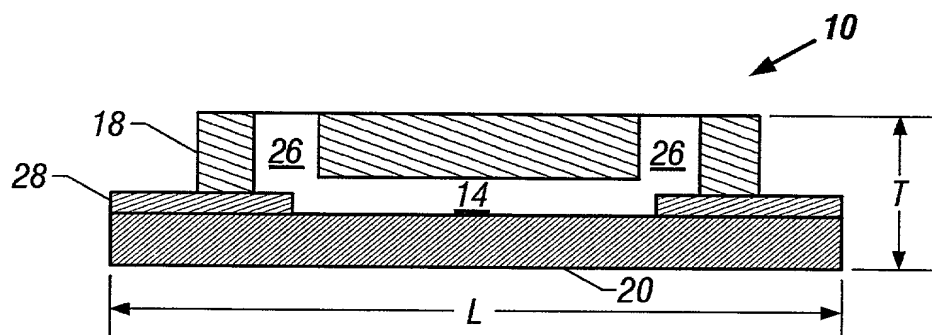


FIG. 2

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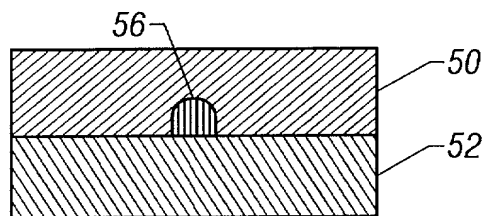


FIG. 3A

70 →

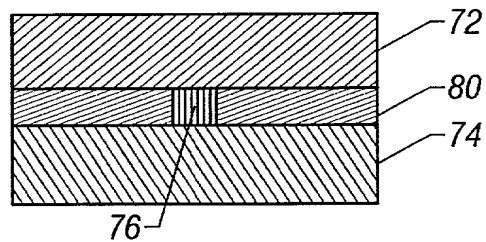


FIG. 3B

90 →

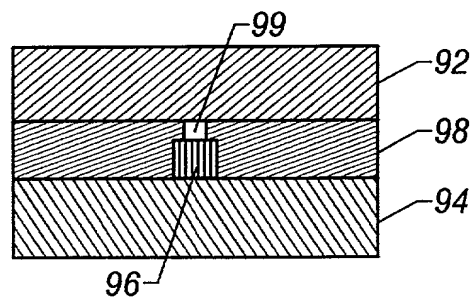


FIG. 3C

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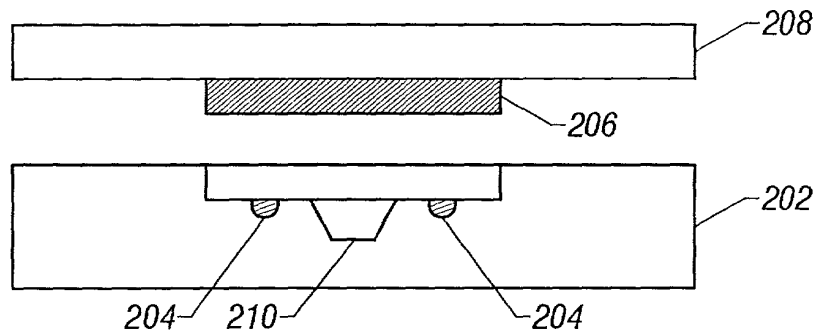


FIG. 4A

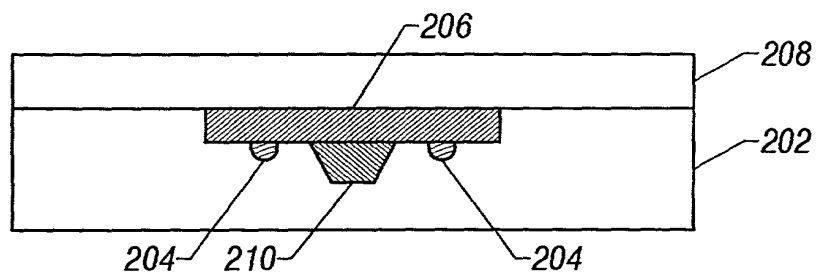


FIG. 4B

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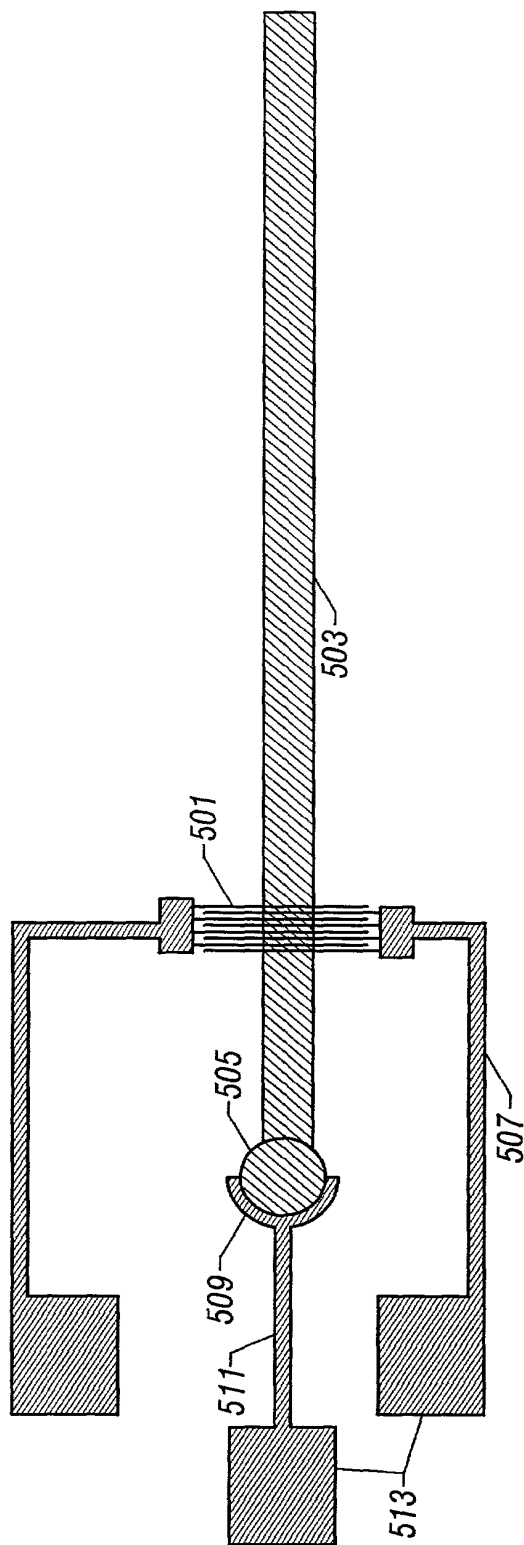


FIG. 5

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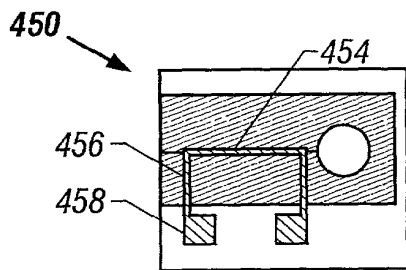


FIG. 6A

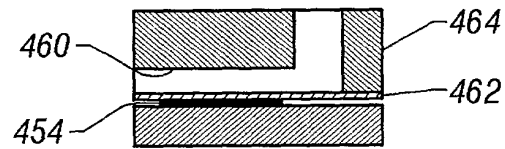


FIG. 6B

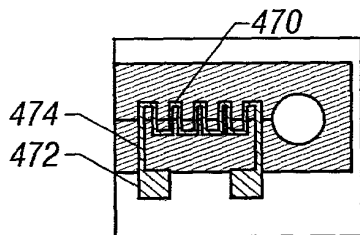


FIG. 6C

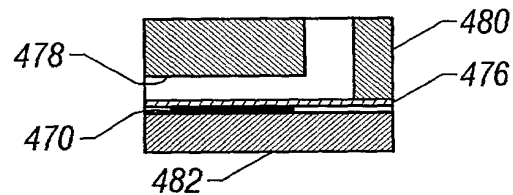


FIG. 6D

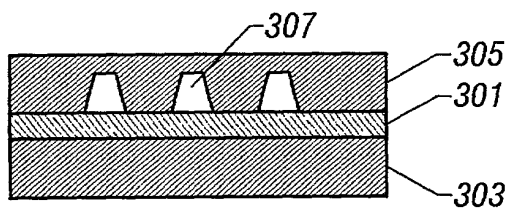


FIG. 7A

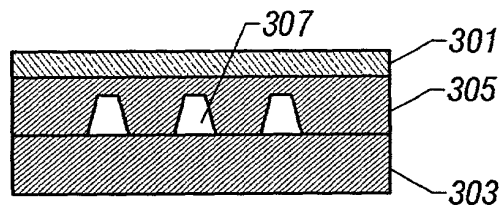


FIG. 7B

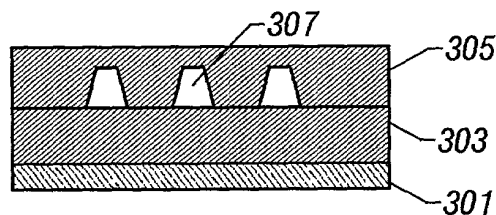


FIG. 7C

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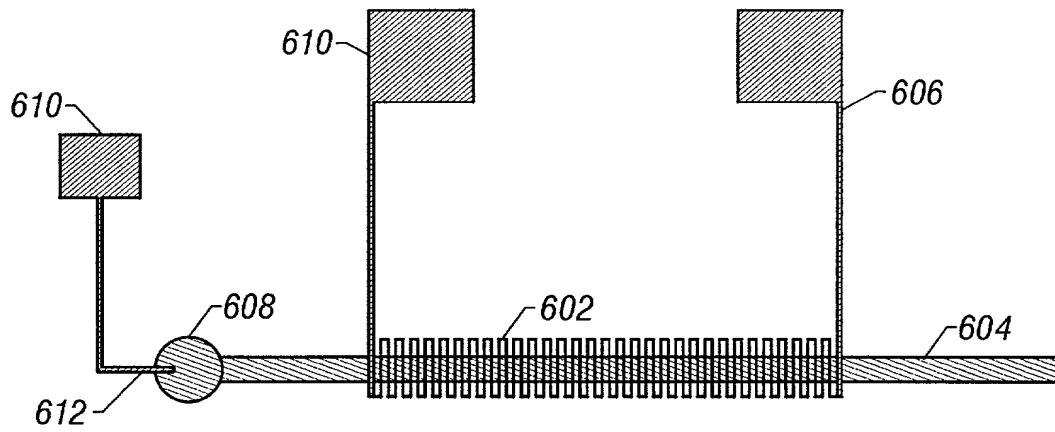


FIG. 8

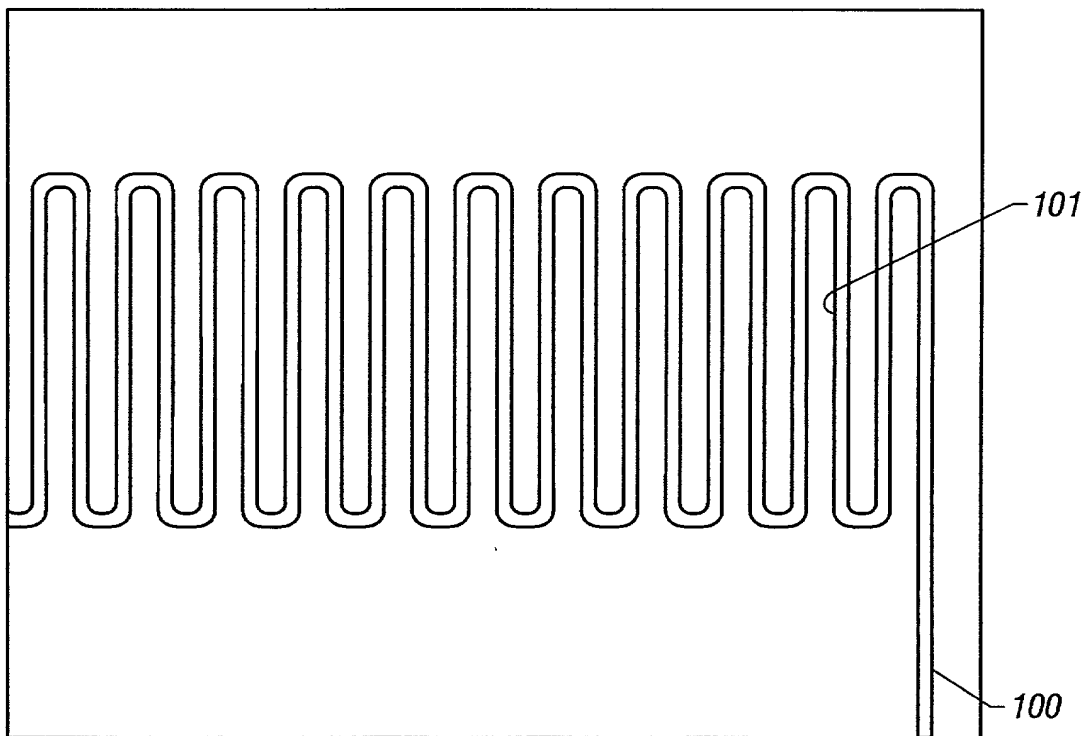


FIG. 9

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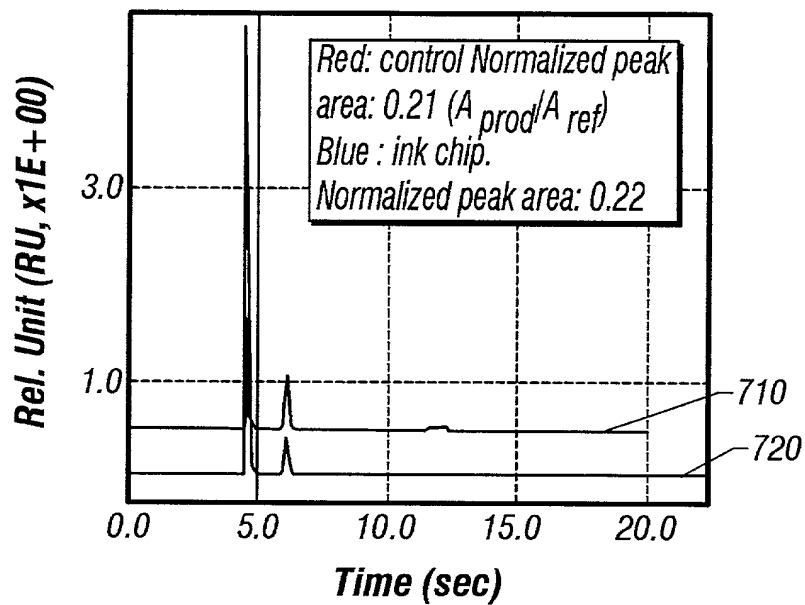


FIG. 10

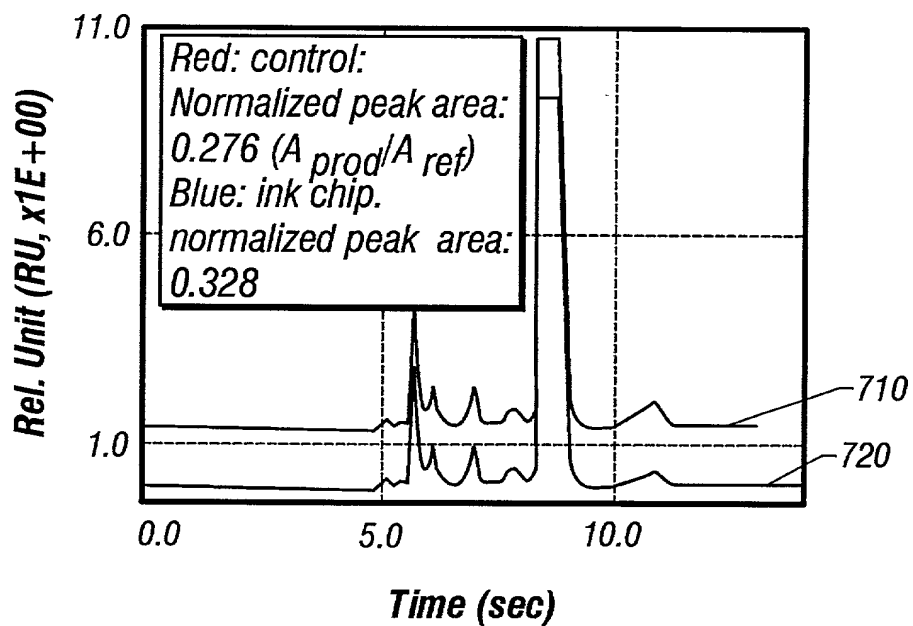


FIG. 11

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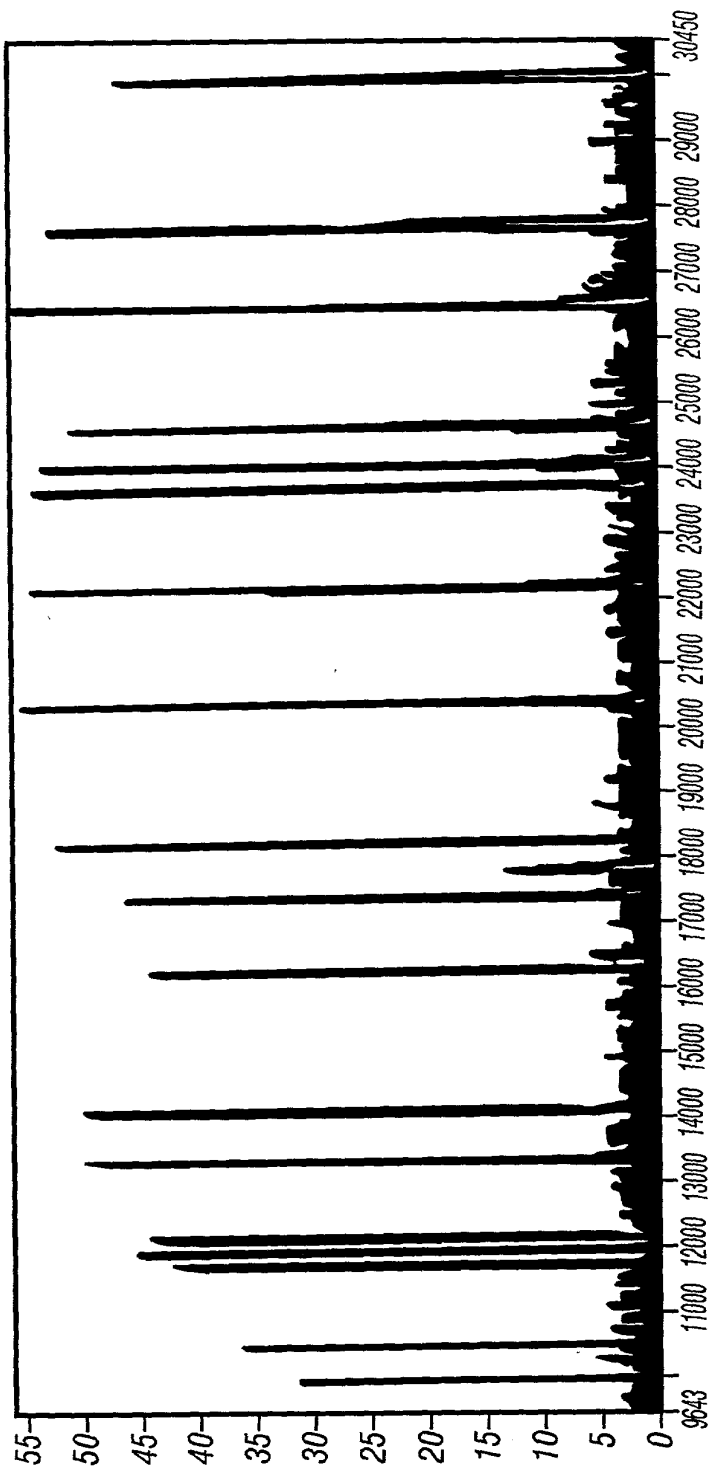


FIG. 12A

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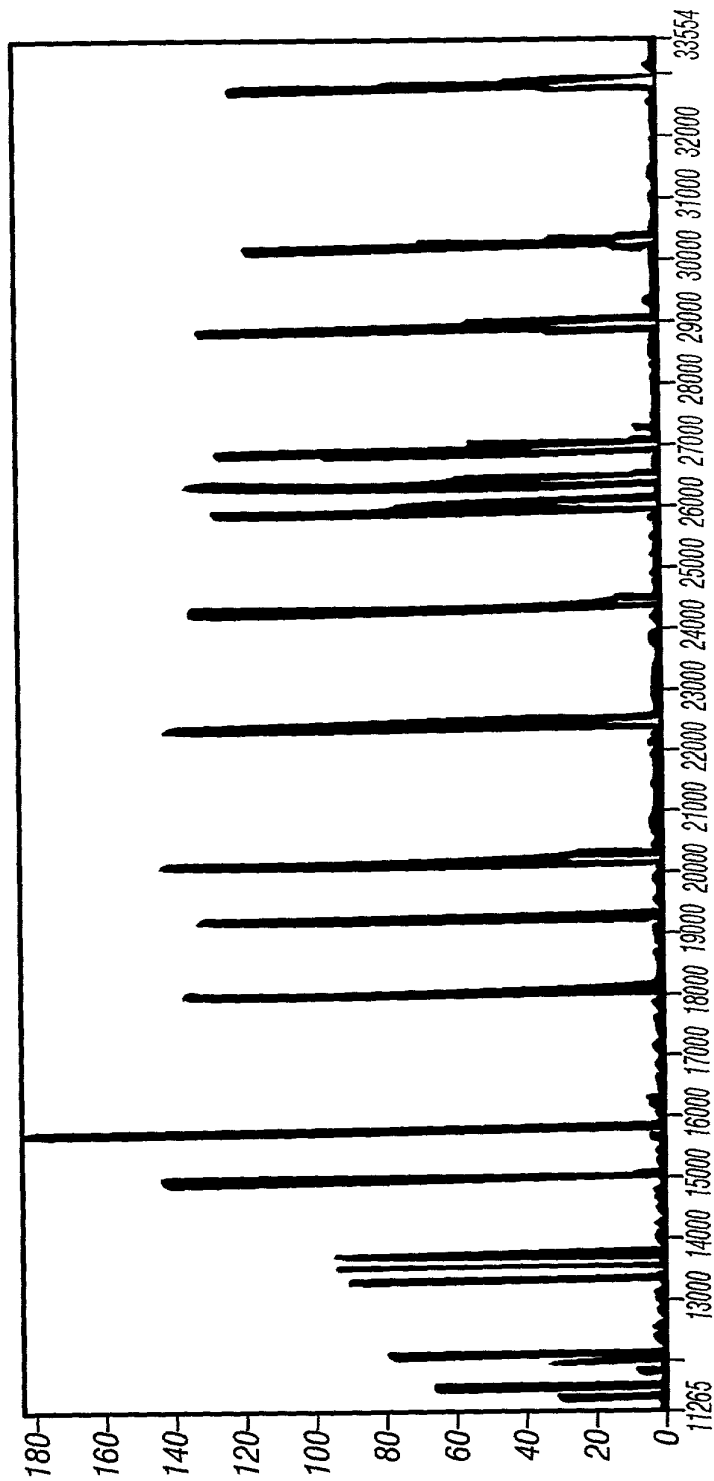


FIG. 12B

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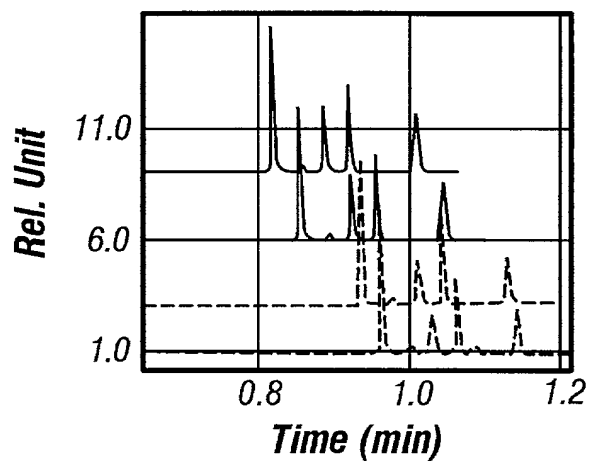
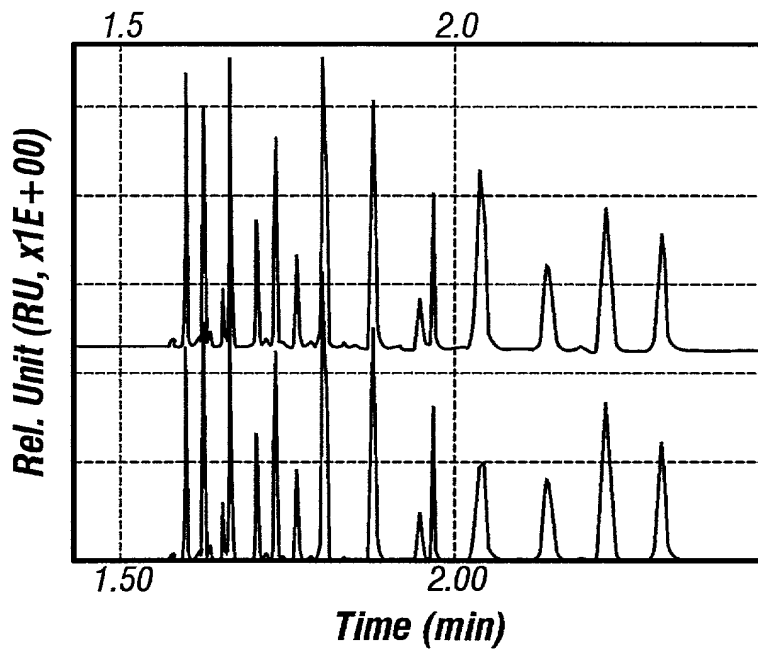


FIG. 13



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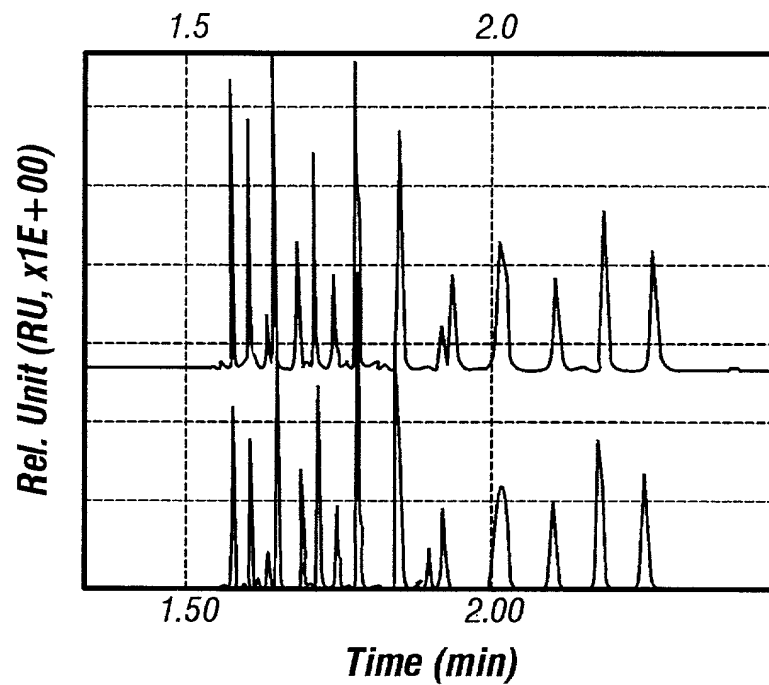


FIG. 14B

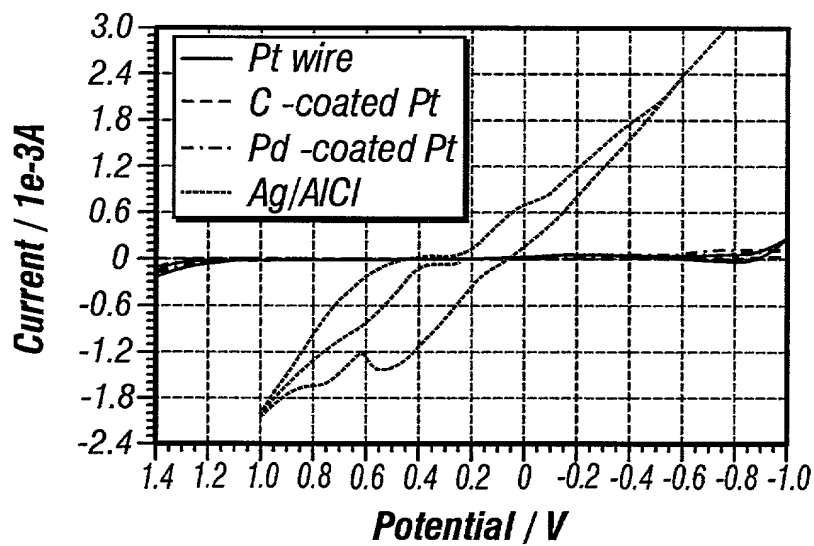


FIG. 15A

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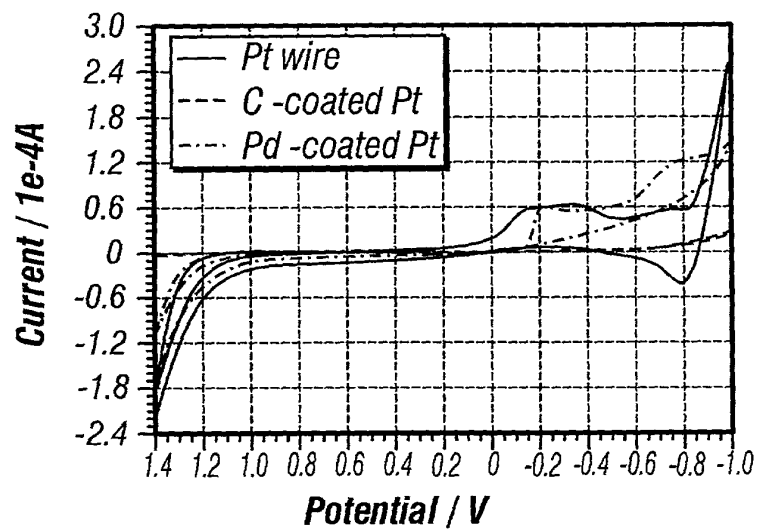


FIG. 15B

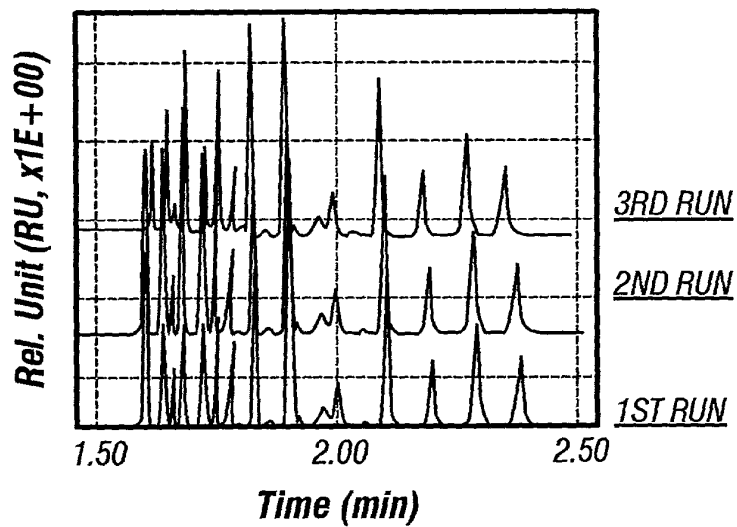


FIG. 16

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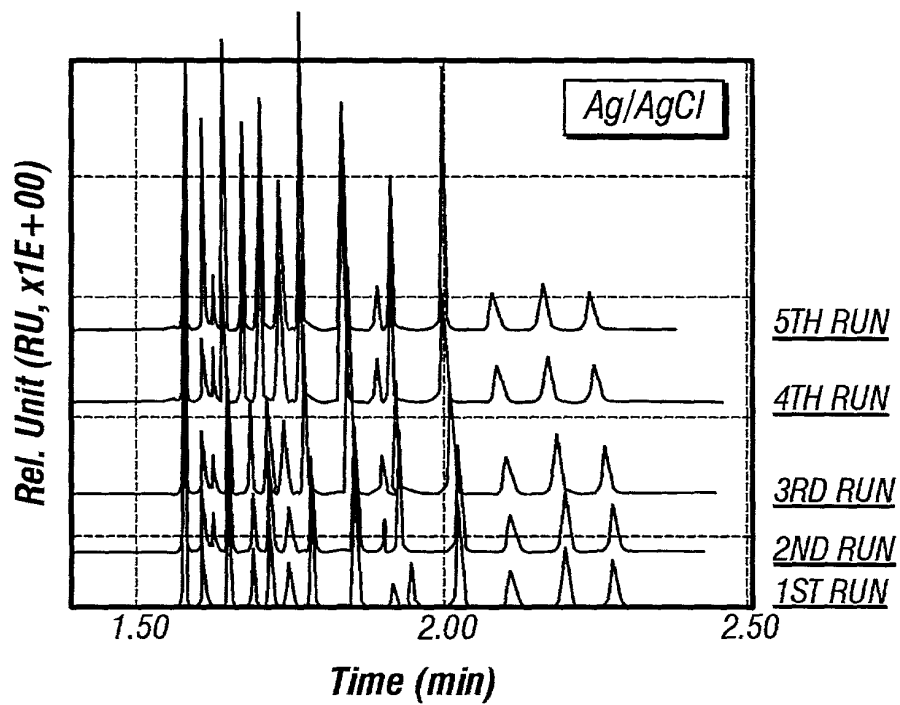


FIG. 17

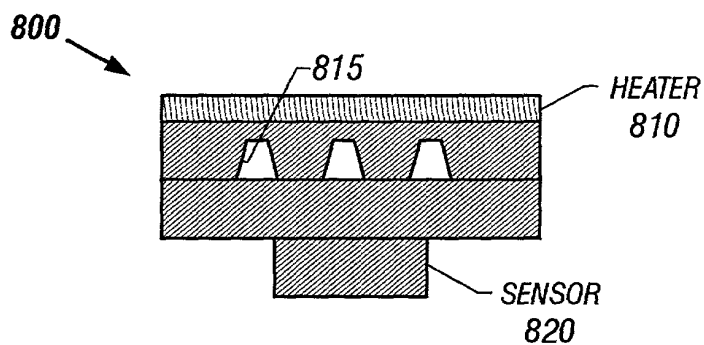


FIG. 18

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REPEATED UNIT HEATER,

$$R=760\Omega$$

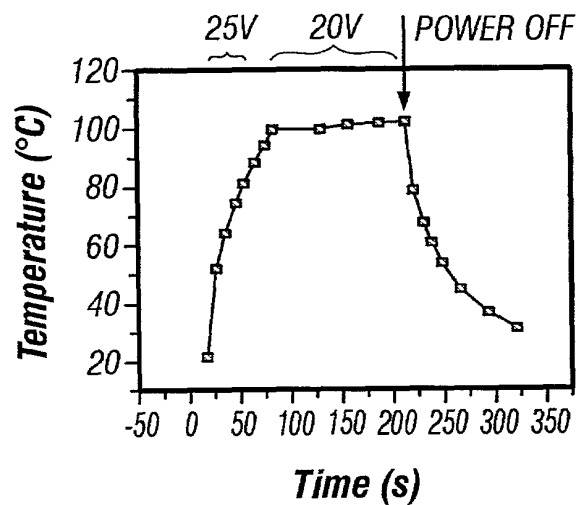


FIG. 19

$$R=205\Omega$$

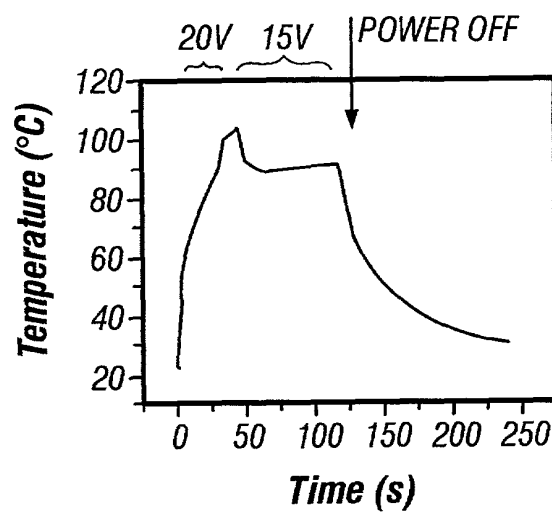


FIG. 20

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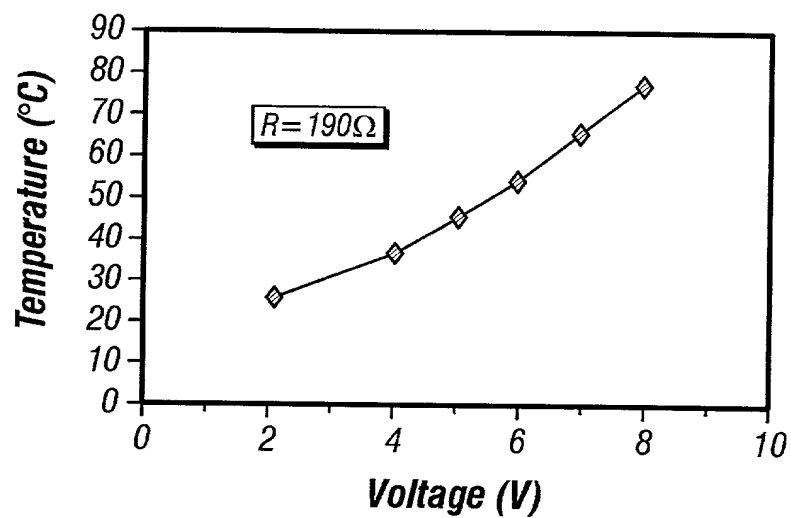


FIG. 21A

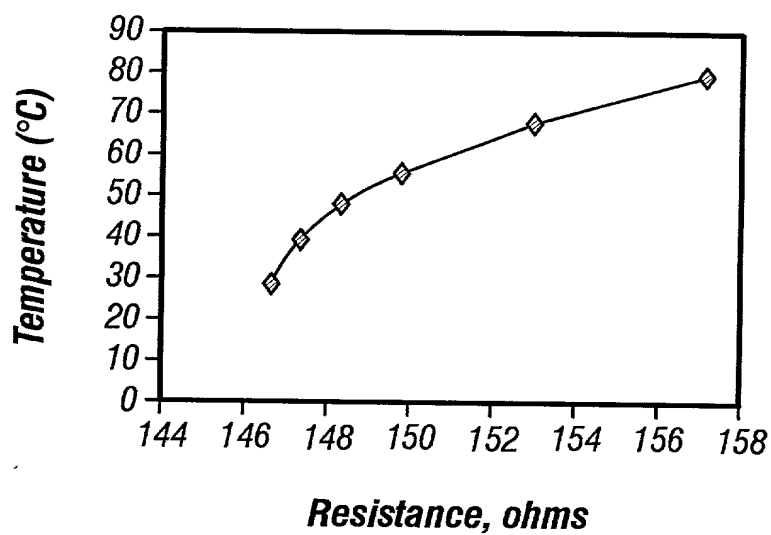


FIG. 21B

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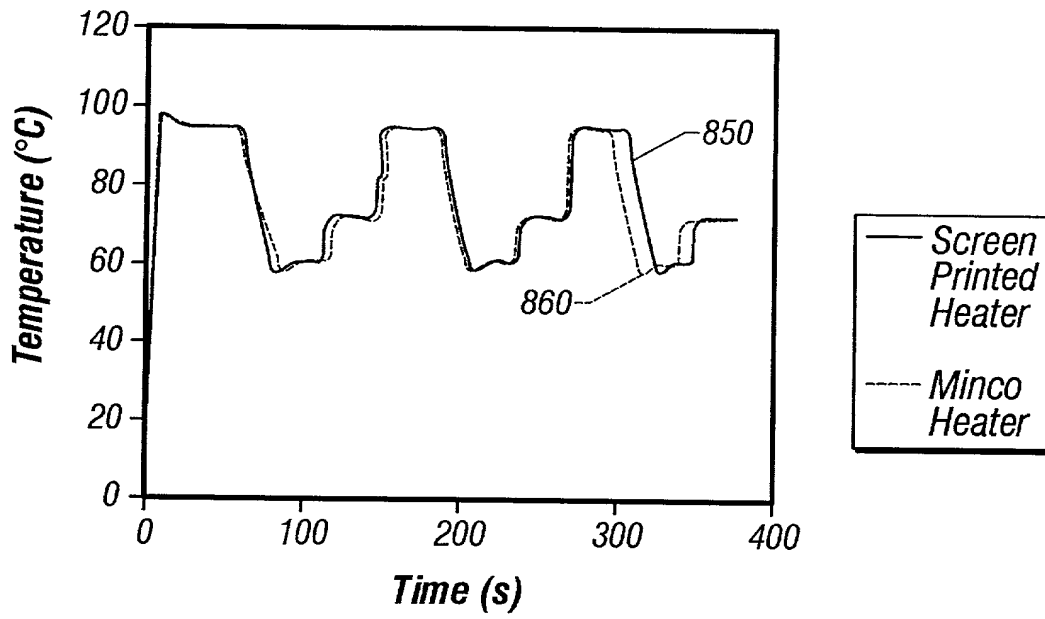


FIG. 21C

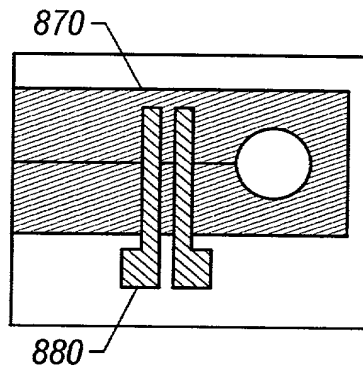


FIG. 22A

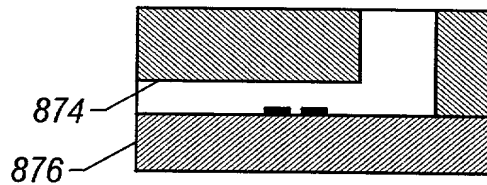


FIG. 22B

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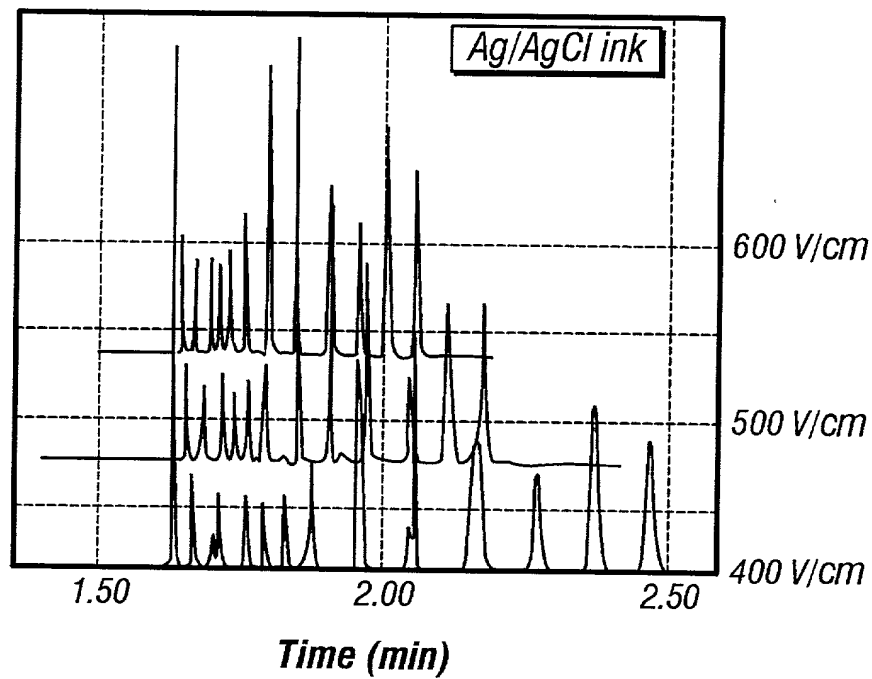


FIG. 23

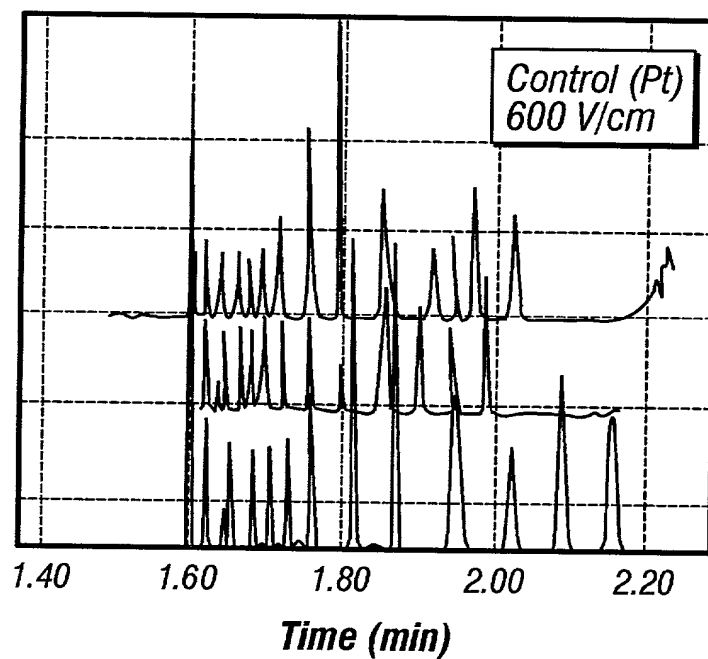


FIG. 24A

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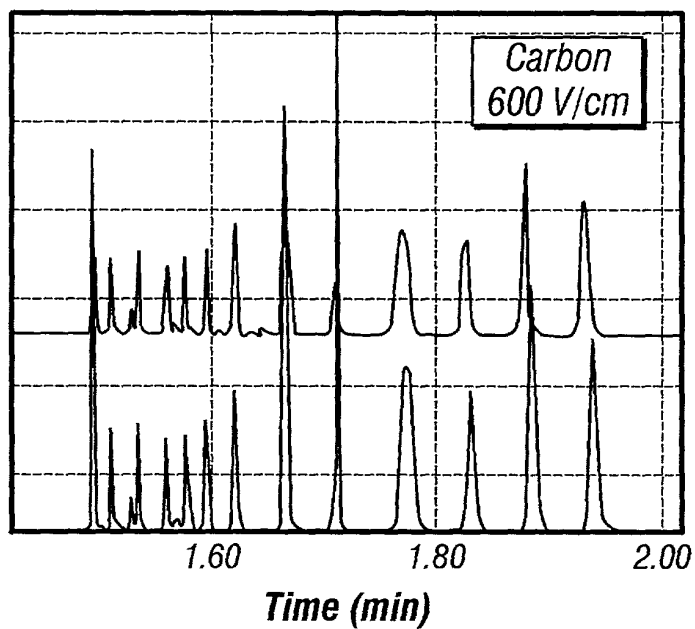


FIG. 24B

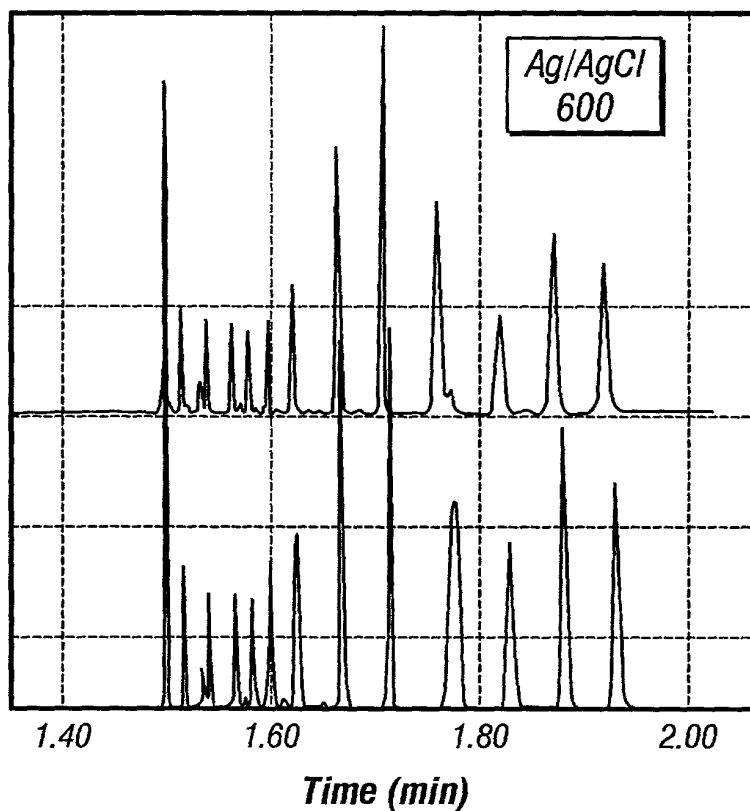


FIG. 24C

eTag Probes (-FC)	Migration Time (min)				Normalized Peak Height				Half Peak Width				Resolution			
	Average		CV		Average		CV		Average		CV		Average		CV	
	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink	Pt	Ink
163	1.56	1.50	6.61	0.19	0.69	0.56	2.81	4.74	0.15	0.12	33.81	4.60				
158	1.58	1.51	6.80	0.19	0.27	0.22	1.61	2.45	0.15	0.13	25.18	2.79	1.01	0.81	25.92	0.70
33	1.61	1.54	7.08	0.18	0.34	0.27	4.80	3.40	0.17	0.15	27.95	0.98	1.36	1.08	19.80	1.18
26	1.63	1.56	7.40	0.23	0.30	0.25	3.57	2.77	0.21	0.18	30.71	2.40	1.38	1.04	27.73	1.30
25	1.65	1.58	7.49	0.22	0.26	0.22	3.28	1.57	0.17	0.16	23.50	4.94	1.05	0.89	13.48	1.44
174	1.67	1.60	7.73	0.22	0.30	0.27	4.16	2.37	0.20	0.18	25.84	2.82	1.32	0.86	44.60	0.90
1	1.70	1.62	7.98	0.22	0.48	0.41	0.29	5.20	0.23	0.20	27.30	2.42	1.51	0.81	70.08	13.70
187	1.75	1.67	8.41	0.21	1.01	0.88	4.52	0.54	0.25	0.22	26.68	1.91	2.04	1.14	63.05	0.06
188	1.80	1.71	8.85	0.37	0.63	0.59	5.03	6.99	0.10	0.08	34.24	6.73	2.17	1.07	33.52	9.03
189	1.86	1.77	9.45	0.72	1.54	1.42	2.98	1.25	0.76	0.53	30.56	29.77	1.99	1.03	30.19	6.73
190	1.92	1.82	10.07	0.50	0.75	0.71	0.64	1.02	0.49	0.46	39.83	21.75	1.59	1.00	47.68	6.52
191	1.98	1.87	10.64	0.41	1.20	1.18	0.33	0.23	0.47	0.42	37.31	10.72	1.72	1.04	45.94	0.27
192	2.04	1.92	11.08	0.44	1.00	1.00	0.00	0	0.49	0.42	35.82	6.85	1.57	0.92	29.69	2.93

FIG. 25